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Fig. 1a)

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ccggcggcag gagccgcac catggagttc cgccaggagg agtttcggaa gctagcgggt 60
cgtgctctcg ggaagctgca ccgccttctg gagaagcggc aggaaggcgc ggagacgtg 120
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catctccct accagcagat tctgcgaaag caccaaatt ctcaagacc tcttctccct 2340
agcttagcat aatgtctggg gaaaca

```

Fig. 1b)

```
1    MEFRQEEFRK LAGRALGKLH RLLEKRQEGA ETLELSADGR PVTQTQTRDPP
51   VVDCTCFGLP RRYIIAIMSG LGFCISFGIR CNLGVAIVSM VNNSTTHRGG
101  HVVVQKAQFS WDPETVGLIH GSFFWGYIVT QIPGGFICQK FAANRVFGFA
151  IVATSTLNML IPSAARVHYG CVIFVRILQG LVEGVTPAC HGIWSKWAPP
201  LERSRLATTA FCGSYAGAVV AMPLAGVLVQ YSGWSSVFYV YGSFGIFWYL
251  FWLLVSYESP ALHPSISEEE RKYIEDAIGE SAKLMNPLTK FSTPWRFFFT
301  SMPVYAIIVA NFCRSWTFYL LLISQPAYFE EVFGFEISKV GLVSALPHLV
351  MTIIVPIGGQ IADFLRSRRI MSTTNVRKLM NCGGFGMEAT LLLVVGYSHS
401  KGVAISFLVL AVGFSGFAIS GFNVNHLDA PRYASILMGI SNGVGTLSGM
451  VCPPIVGAMT KHKTREEWQY VFLIASLVHY GGVIFYGVFA SGEKQPWAEP
501  EEMSEEKCGF VGHDQLAGSD DSEMEDEAEP PGAPPAPPPS YGATHSTFQP
551  PRPPPPVRDY
```

Fig. 1c)

cgataagctt	gatatcgaat	tccggactct	tgctcgggcg	ccttaaccog	gcgttcgggt	60
catcccgag	cgccagttct	gcttaccaaa	agtggcccac	taggcactcg	cattccacgc	120
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tcgtttcggc	cccaagacct	ctaatacttc	gctttaccgg	ataaaactgc	gtggcggggg	240
tgcgtcgggt	ctgcgagagc	gccagctatc	ctgagggaaa	cttcggaggg	aaccagctac	300
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ccagttcagc	tgggatccag	agactgtcgg	cctcatcac	ggctcctttt	tctggggcta	840
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gccattccag	ggattgatcc	tcaccagcgt	ttctgatgga	aaatggcggg	aattcctgca	2700
gcccggggga	tccact					2716

Fig. 1d)

```
1    MEFRQEEFRK LAGRALGKLH RLLEKRQEGA ETLELSADGR PVTTQTRDPP
51   VVDCTCFGLP RRYIIAIMSG LGFCISFGIR CNLGVAIVSM VNNSTTHRGG
101  HVVVQKAQFS WDPETVGLIH GSFFWGYIVT QIPGGFICQK FAANRVFGFA
151  IVATSTLNML IPSAARVHYG CVIFVRILQG LVEGVITYPAC HGIWSKWAPP
201  LERSRLATTA FCGSYAGAVV AMPLAGVLVQ YSGWSSVFYV YGSFGIFWYL
251  FWLLVSYESP ALHPSISEEE RKYIEDAIGE SAKLMNPLTK FSTPWRRFFT
301  SMPVYAIIVA NFCRSWTFYL LLISQPDYFE EVFGFEISKV GLVSALPHLV
351  MTIIVPIGGQ IADFLRSRRI MSTTNVRKLM NCGGFGMEAT LLLVVGYSHS
401  KGVAISFLVL AVGFSGFAIS GFNVNHLDA PRYASILMGI SNGVGTLSGM
451  VCPIIVGAMT KHKTREEWQY VFLIASLVHY GGVIFYGVFA SGEKQPWAEF
501  EEMSEEKCGF VGHDQLAGSD DSEMEDEAEP PGAPPAPPPS YGATHSTFQP
551  PRPPPPVRDY
```

Fig. 1)

```

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gacgcggccg cccggggccc cgggcggggg gattggcagg ggaccgcgt gggcacagcc 120
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```

Fig. 1f)

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1  MEFRQEEFRK LAGRALGRLH RLLEKRQEGA ETLELSADGR PVTTHTRDPP VVDCTCFGLP
51  RRYIIAIMSG LGFCISFGIR CNLGVAIVSM VNNSTTHRGG HVVVQKAQFN WDPETVGLIH
101 GSFFWGYIVT QIPGGFICQK FAANRVFGFA IVATSTLNML IPSAARVHYG CVIFVRILQG
151 LVEGVTPAC HGIWSKWAPP LERSRLATTA FCGSYAGAVV AMPLAGVLVQ YSGWSSVFYV
201 YGSFGIFWYL FWLLVSYESP ALHPSISEEE RKYIEDAIGE SAKLMNPVTK FNTPWRRFFT
251 SMPVYAIIVA NFCRSWTFYL LLISQPAYFE EVFGFEISKV GLVSALPHLV MTIIVPIGGQ
301 IADFLRSRHI MSTTNVRKLM NCGGFGMEAT LLLVVGYSHS KGV AISFLVL AVGFSGFAIS
351 GFNVNHL DIA PRYASILMGI SNGVGTLSGM VCP IIVGAMT KHK TREEWQY VFLIASLVHY
401 GGVIFYGVFA SGEKQPWAEF EEMSEEKCGF VGHDQLAGSD ESEMEDEVEP PGAPPAPPPS
451 YGATHSTVQP PRPPPPVRDY
```

Fig. 1g)

```

1      cggccgcgccg ggccccgcggg cgggggggatt ggagggggac ccgcgtgggc acagccacca
61     tggagtcccg  gcaggaggag tttcgggaagc tggcggggcg cgcctgggg aggtgcacc
121    ggttactgga  gaagcggcag gaaggcgcgg agacactgga gctgagtgcc gacgggcggc
181    cagtgaccac  gcacactcgg gaccgcctg  tggtagactg cactgcttt ggctccctc
241    gtcgctacat  catcgccatc atgagcggtc tgggtttctg tatcagcttt ggcacccgt
301    gcaacctggg  cgtggccatc gtgtccatgg tcaacaacag cacaaccac cgtggggggc
361    acgtgggtgg  gcagaaagcc cagttcaact gggatccaga gactgtcggc ctcatatg
421    gctccttttt  ctggggctac attgtcactc agattcctgg aggatttatc tgccaaaaat
481    tcgcagccaa  cagggctctt ggctttgcca ttgtggctac ctccacccta aacatgttga
541    tcccttcagc  agcccgcggt cactatgggt gtgtcatctt cgtgaggatc cttcagggat
601    tggtaggggg  ggtcacatac cctgcttgcc atggcatctg gagcaaatgg gccctccct
661    tagaacggag  tcggctggca acgacagcct tttgcggttc ctatgctggg gcggtgggtg
721    ccatgccctt  ggctggggtc cttgtgcagt attcaggatg gagttctgtc ttctatgtct
781    atggcagctt  cgggatcttt tggtagctgt tctggttgc tgtctcctat gactcaccgg
841    cactgcaccc  cagcatctct gaggaggagc gcaaatacat tgaggatgcc atcggggaga
901    ccgccaaagt  catgaacctt gttacgaagt ttaacacacc ctggaggcgc ttctttacgt
961    ccatgcccg  ctatgccatc atcgttgcca acttttgccg cagctggacc ttctacctgc
1021   tcctcatctc  tcagcccgcc tactttgaag aagtgttcgg ctttgagatc agcaagggtg
1081   ggctgggtgc  ggcgctgcct caccttgtoa tgaccatcat cgtaccatt ggaggccaga
1141   tcgctgactt  tttgcgcagt cgtcacataa tgtccactac caacgtgcca aagctcatga
1201   actgcggggg  tttcgggatg gaagccacgc tgctgctggg ggtcggatac tcgactcca
1261   agggcggtgg  catctccttc ctggtcctgg ctgtgggctt cagtggcttt gccatcttg
1321   ggtttaacgt  gaaccacttg gacatcgccc ctgctatgc cagcatcttg atgggcattt
1381   ccaatggcgt  gggcacactg tctgggatgg tgtgccccat catcgtgggt gcaatgacca
1441   agcacaagac  gcgggaggag tggcagtacg tgttcctcat agcctccctg gtgcactacg
1501   gcggtgtcat  cttctatggg gcttttgctt cgggagagaa gcagccgtg gcagagccgg
1561   aggagttag  cgaggagaag tgtggttttg ttggccacga ccagctggct ggcatgacg
1621   aaagtgaat  ggaggacgag gctgagcccc caggggcgcc cccgcgcgc cctccgtcct
1681   acggggccac  acacagcaca gtgcagcctc cgaggccccc gccccctgtc cgggactact
1741   gaccacgggc  ctcccactgt ggggcagttt ccaggacttc cactccatac acctctagcc
1801   tgagcggcag  tgtcgaggaa cccactcct cccctgcctc aggttaaga tgcaagtctt
1861   ccttggttcc  cagtgtgtgc cgaccagccc tctttccctc tcaactgcct cctgcggggg
1921   gtgaagctgc  aactagcag tttcaaggat acccagactc ccctgaaagt cgttctccgc
1981   ttgtttctgc  ctgtgtgggc tcaaatctcc cctttgaggg ctttatttgg agggacagtt
2041   caacctcttc  ctctcttgtg gttttgaggt ttcacccctt cccccaagac ccaggggatt
2101   ctcaggctac  ccgagatta ttcaggtggg cccctactca gaagacttca tggctgtcct
2161   ctattagttt  caaggctcgc ctaaccaatt ctacattttt ccaagctggt ttaacctaac
2221   caccaatgcc  gccgttccca ggactgatte tcaccagcgt ttctgaggga aaatggcggt
2281   ttcaagtccc  cccaccccc ttttcttccc tegtccctc accagcacac ttgcccgggc
2341   cttgacctta  gcttagtaca atcattgtcc agggaaatgg ccaaaatggc totgtccacc
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2701   tacagaatcc  caggaaaggg agcggggctg ggaggagagg gttgttctct gggcagggct
2761   gtgtcttgg  gtgtgtctct gtgacgtaaa tctgtccctg cccaccccca ctcccaataa
2821   acgtctcgg  gtacgg

```


Fig. 1h)

1	MEFRQEEFRK	LAGRALGRLH	RLLEKROEGA	ETLELSADGR	PVTTHTRDPP	VVDCTCFGLP
61	RRYIIAIMSG	LGFCISFGIR	CNLGVAIVSM	VNNSTTHRGG	HVVVQKAQFN	WDPETVGLIH
121	GSFFWGYIVT	QIPGGFICQK	FAANRVFGFA	IVATSTLNML	IPSAARVHYG	CVIFVRILQG
181	LVEGVITYPAC	HGIWSKWAPP	LEERSRLATTA	FCGSYAGAVV	AMPLAGVLVQ	YSGWSSVFYV
241	YGSFGIFWYL	FWLLVSYESP	ALHPSISEEE	RKYIEDAIGE	SAKLMNPVTK	FNTPWRRFFT
301	SMPVYAIIVA	NFCRSWTFYL	LLISQPAYFE	EVFGFEISKV	GLVSALPHLV	MTIIVPIGGQ
361	IADFLRSRHI	MSTTNVRKLM	NCGGFGMEAT	LLLVVGYSHS	KGVAISFLVL	AVGFSGFAIS
421	GFNVNHL DIA	PRYASILMGI	SNGVGTLSGM	VCPIIVGAMT	KHKTREEWQY	VFLIASLVHY
481	GGVIFYGVFA	SGEKQPWAEF	EEMSEEKCGF	VGHDQLAGSD	ESEMEDEAEP	PGAPPAPPPS
541	YGATHSTVQP	PRPPPPVRDY				

Fig. 2a)

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Fig. 2 b)

```

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181  IFVRILQGLV EGV TYPACHG IWSKWAPPLE RSRLATTSFC GSYAGAVIAM PLAGILVQYT
241  GWSSVFYVYG SFGMVWYMFV LLVSYESPAC HPTITDEERR YIEESIGESA NLLGAMEKFK
301  TPWRKFFTSM PVYAIIVANF CRSWTFYLLL ISQPAYFEEV FGFEISKVGM LSAVPHLVMT
361  IIVPIGGQIA DFLRSKQILS TTVRKIMNC GGFGMEATLL LVVGYSHTRG VAISFLVLAV
421  GFSGFAISGF NVNHLDIAPR YASILMGISN GVGTLSGMVC PIIVGAMTKN KSREEWQYVF
481  LIAALVHYGG VIFYAIFASG EKQPWADPEE TSEEKCGFIH EDELDEETGD ITQNYINYGT
541  TKSYGATTQA NGGWPSGWEK KEEFVQGEVQ DSHSYKDRVD  YS

```

Fig. 2c)

```

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Fig. 2d)

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101 NSTIHRGGKV IKEKAKFNWD PETVGMIHGS FFWGYIITQI PGGYIASRLA
151 ANRVFGAAIL LTSTLNMLIP SAARVHYGCV IFVRILQGLV EGVITYPACHG
201 IWSKWAPPLE RSRLATTSFC GSYAGAVIAM PLAGILVQYT GWSSVFYVYG
251 SFGMVWYMFV LLVSYESPAK HPTITDEERR YIEESIGESA NLLGAMEKFK
301 TPWRKFFTSM PVYAIIVANF CRSWTFYLLL ISQPAYFEEV FGFEISKVGM
351 LSAVPHLVMТ IIVPIGGQIA DFLRSKQILS TTTVRKIMNC GGFGMEATLL
401 LVVGYSHTRG VAISFLVLAV GFSGFAISGF NVNHLDIAPR YASILMGISN
451 GVGTLSGMVC PIIVGAMTKN KSREEWQYVF LIAALVHYGG VIFYALFASG
501 EKQPWADPEE TSEEKCGFIH EDELDEETGD ITQNYINYGT TKSYGATSQE
551 NGGWPNGWЕК KEEFVQESAQ DAYSYKDRDD YS
```

Fig. 2e)

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```


Fig. 2f)

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1   MESVKQRILA PGKEGIKNFA GKSLGQIYRV LEKKQDNRET IELTEDGKPL EVPEKKAPLC
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121 PETVGMIHGS FFWGYIITQI PGGYIASRLA ANRVFGAAIL LTSTLNMLIP SAARVHYGCV
181 IFVRILQGLV EGVITYPACHG IWSKWAPPLE RSRLATTSFC GSYAGAVIAM PLAGILVQYT
241 GWSSVFYVYG SFGMVWYMFV LLVSYESPAK HPTITDEERR YIEESIGESA NLLGAMEKFK
301 TPWRKFFTSM PVYAIIVANF CRSWTFYLLL ISQPAYFEEV FGFEISKVGM LSAVPHLVMT
361 IIVPIGGQIA DFLRSKQILS TTTVRKIMNC GGFGMEATLL LVVGYSHTRG VAISFLVLAV
421 GFSGFAISGF NVNHLDIAPR YASILMGISN GVGTLSGMVC PIIVGAMTKN KSREEWQYVF
481 LIAALVHYGG VIFYALFASG EKQPWADPEE TSEKCGFIH EDELDEETGD ITQNYINYGT
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FIG 3)

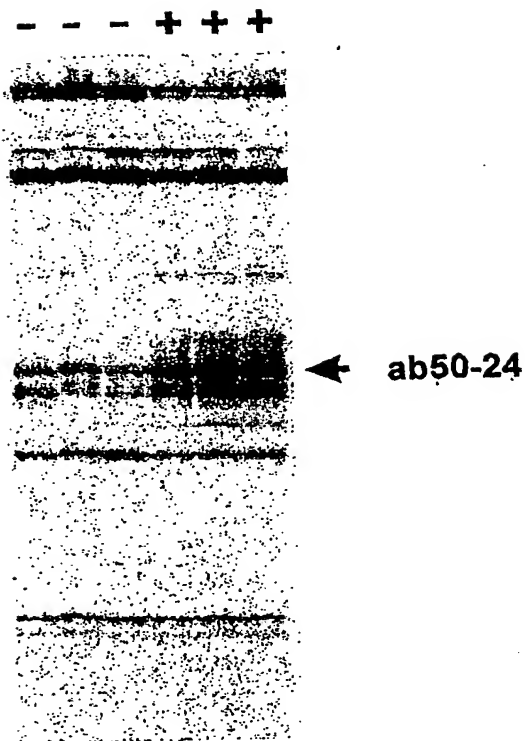


FIG 4)

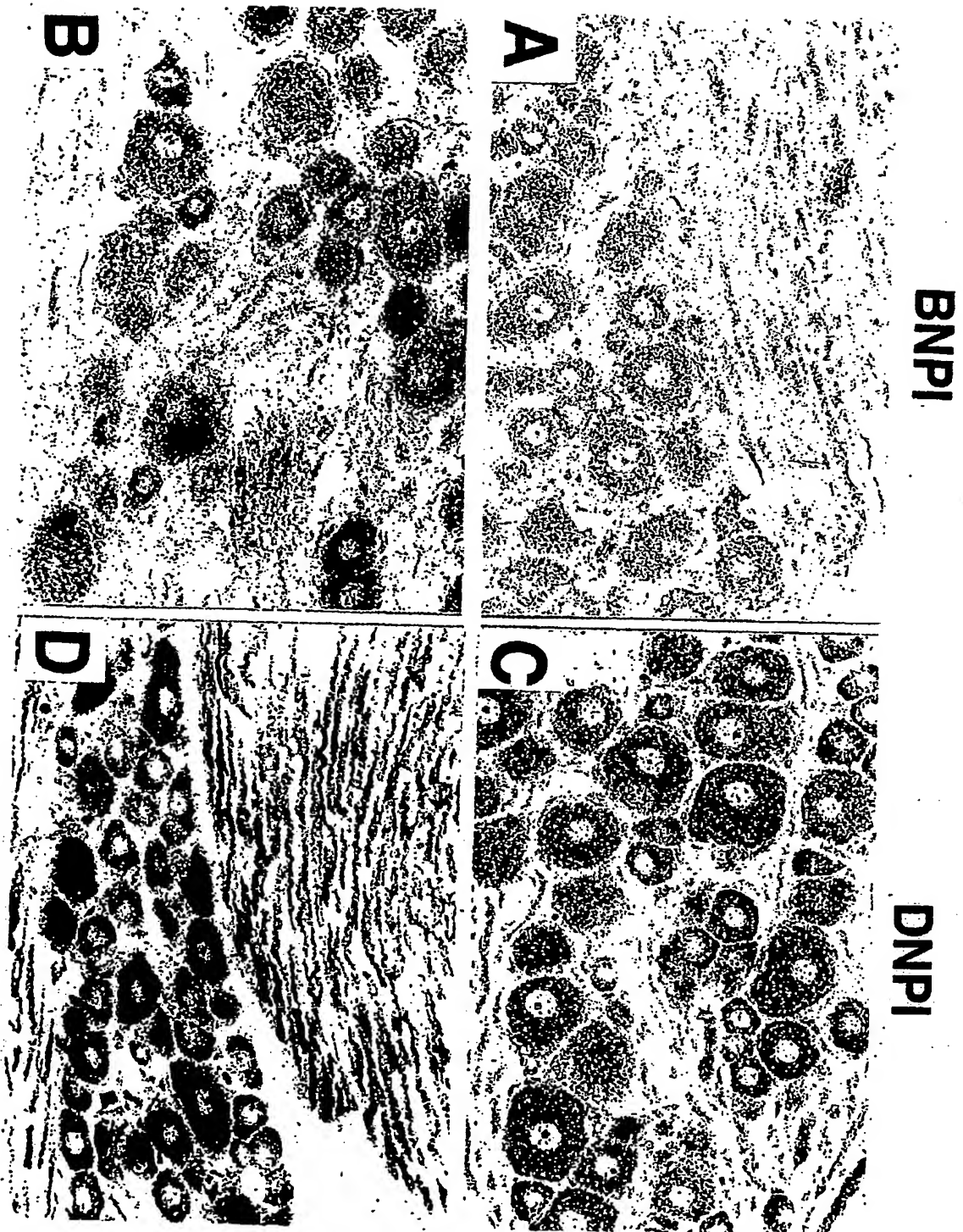


FIG 5)

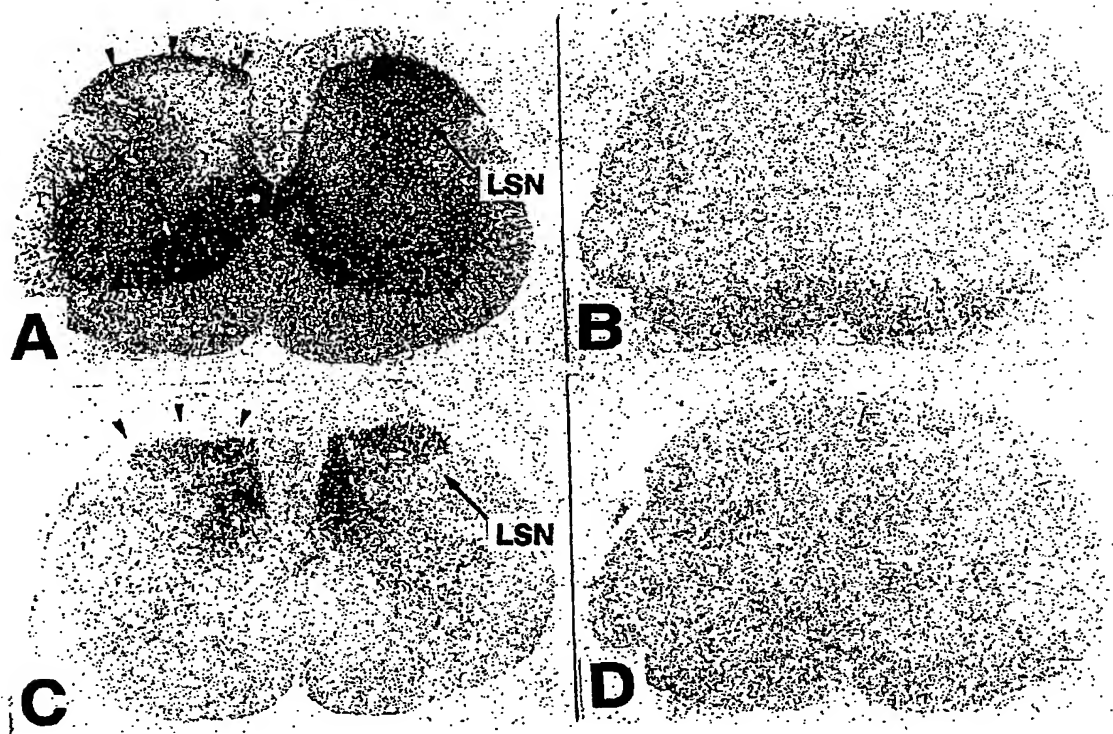


FIG 6)

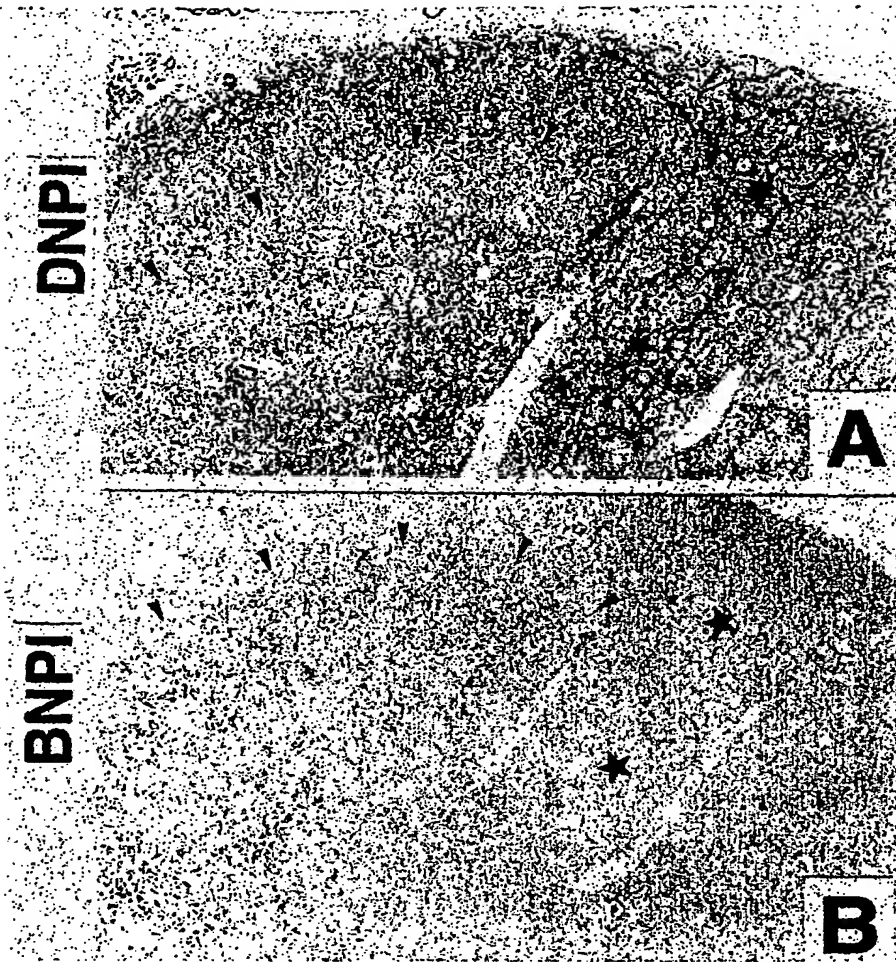


FIG 7)

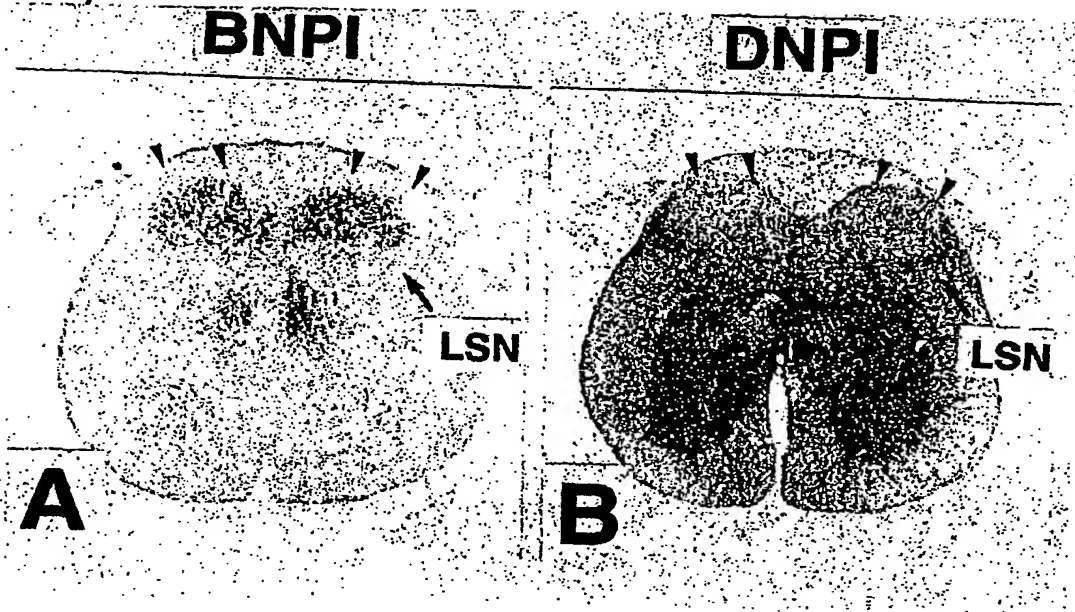


FIG 8)

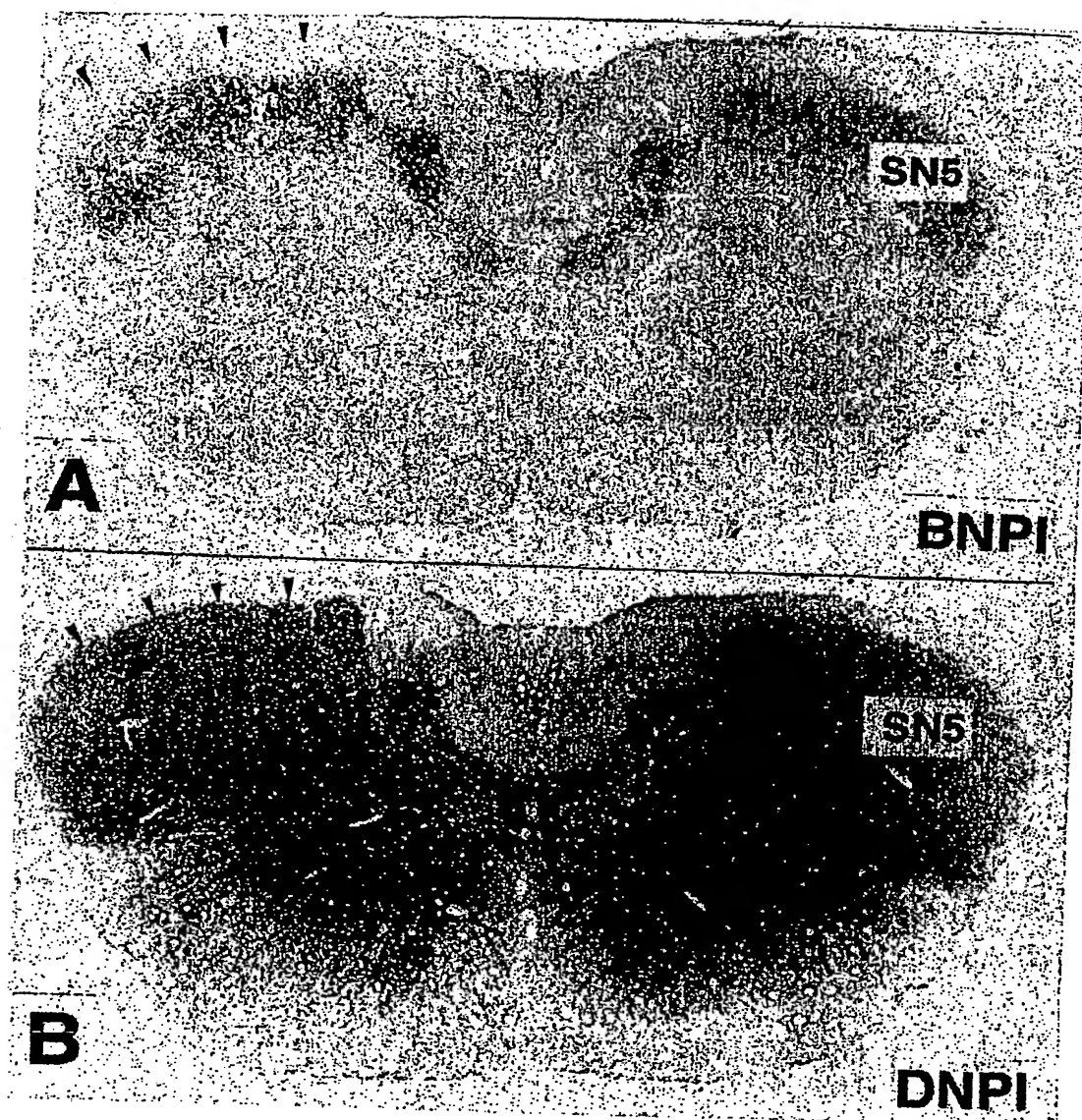


FIG 9)

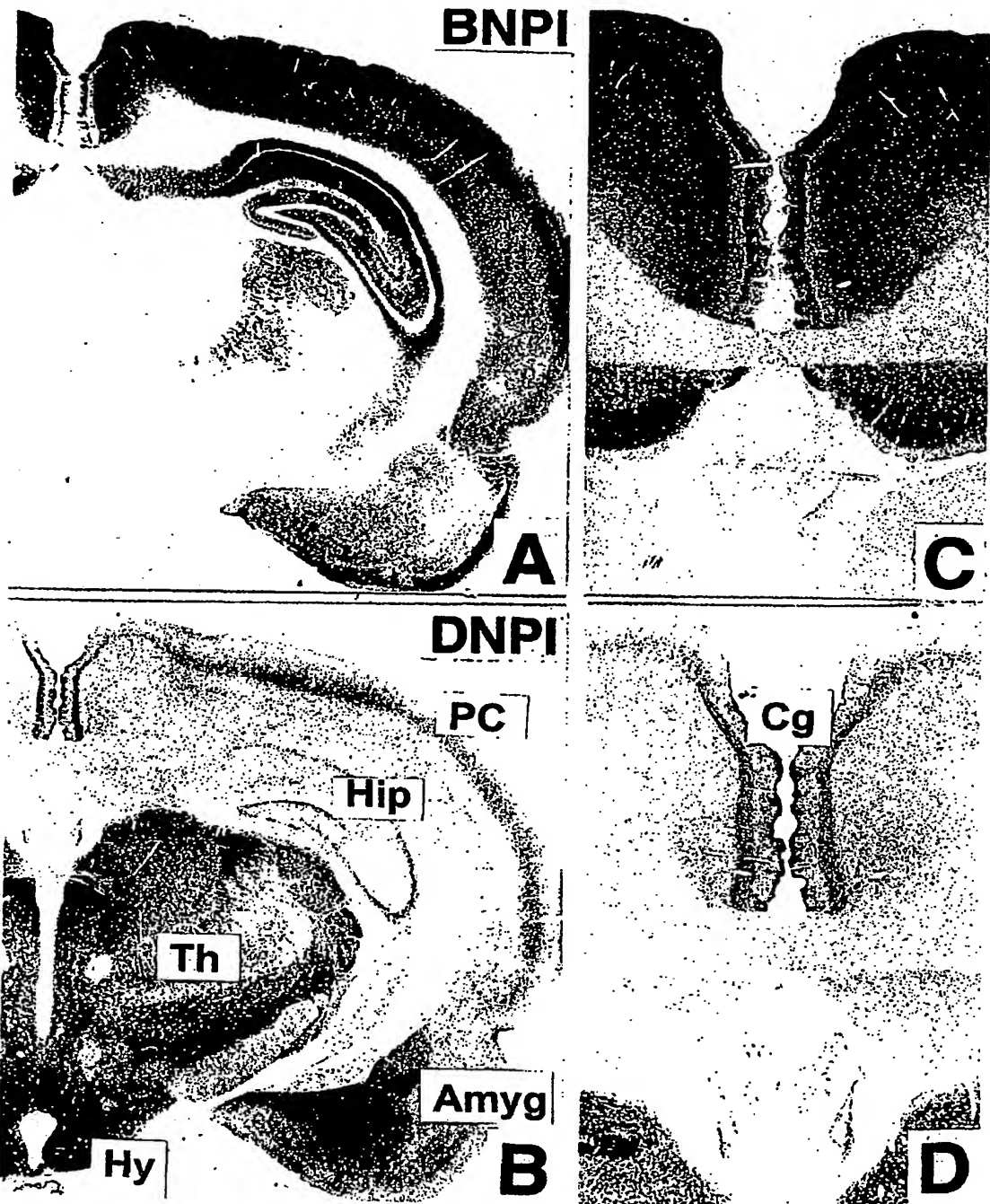


FIG 10)

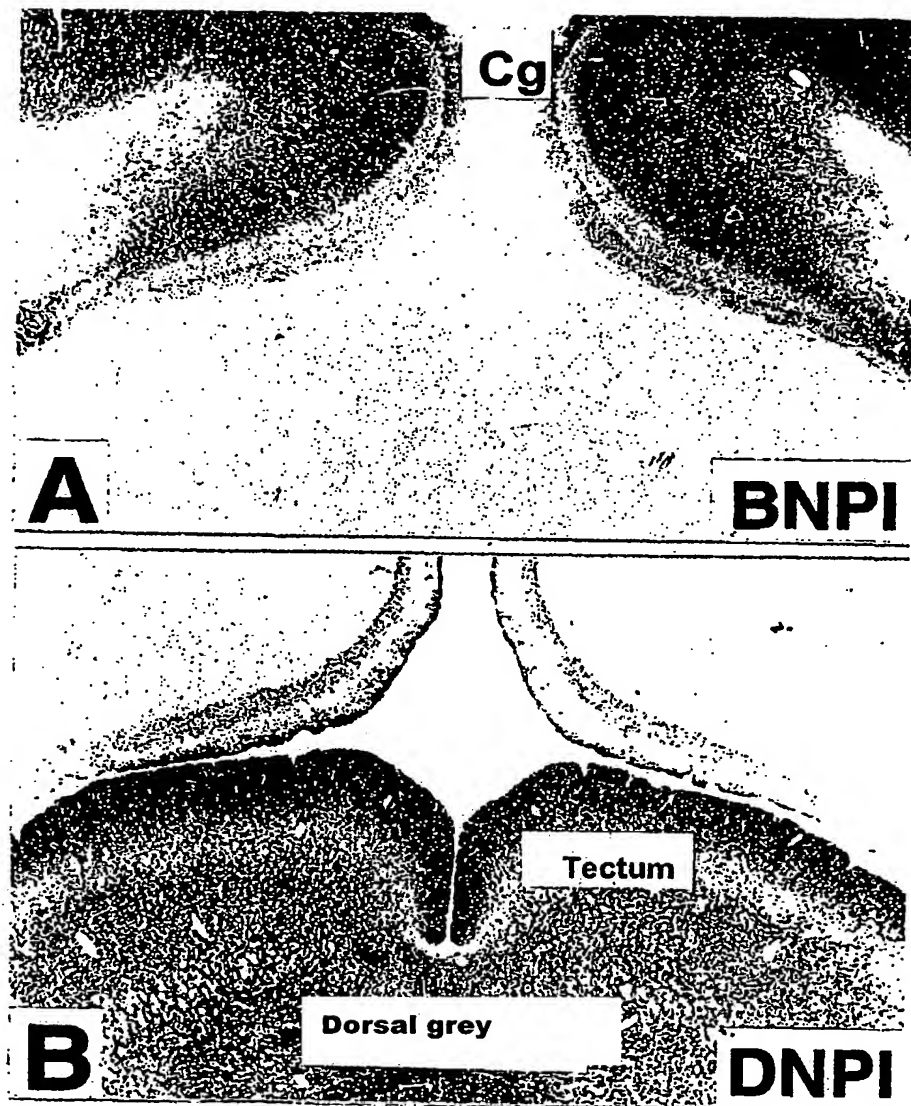


FIG 11)

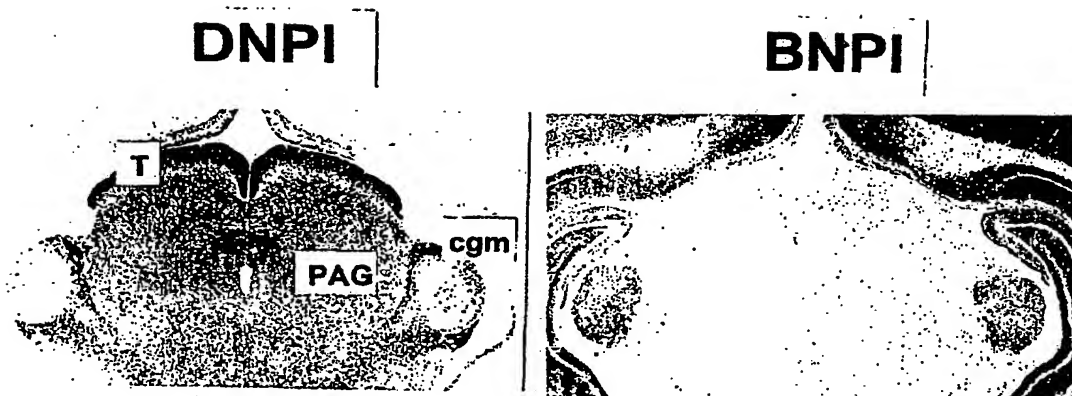
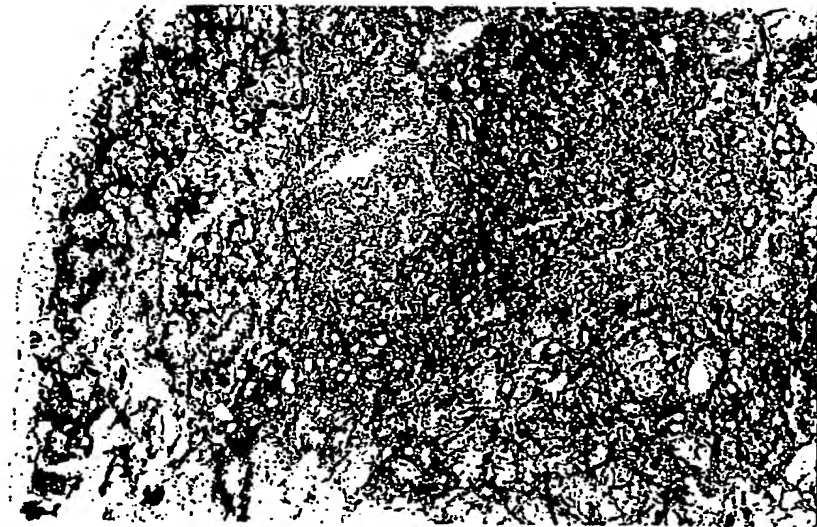


FIG 12)

DNPI



DNPI



BNPI

